, ATENT COOPERATION TREATY

To:

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

United States Patent and Trademark Office (Box PCT) Crystal Plaza 2

in its capacity as elected Office

Washington, DC 20231 **ÉTATS-UNIS D'AMÉRIQUE**

Date of mailing (day/month/year) 02 July 1999 (02.07.99)

International application No. PCT/US98/23141

International filing date (day/month/year) 30 October 1998 (30.10.98)

Applicant's or agent's file reference 07985/012WO1

Priority date (day/month/year) 31 October 1997 (31.10.97)

Applicant

LAUGHARN, James, A., Jr. et al

_	20 May 1999 (20.05.99)	an again ter	
in a notice e	effecting later election filed with the International Bureau on:		
2. The election	a		
	was		
	was not		
	<u>.</u>	ies, within the time limit under	
made before the e	was not	ies, within the time limit under	
made before the e	was not	ies, within the time limit under	
made before the e	was not	ies, within the time limit under	

The International Bureau of ₩IPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland

Authorized officer

F. Zotomayor

Telephone No.: (41-22) 338.83.38

Facsimile No.: (41-22) 740.14.35

INTERNATIONAL SEARCH REPORT

International application No. PCT/US98/23141

A. CLAS	SIFICATION OF SUBJECT MATTER							
IPC(6) :E	301L 11/00; B32B 27/04; C07H 1/00; G01N 1/14							
US CL :422/50, 101, 159, 186.04; 536/ 25.4, 25.41 according to International Patent Classification (IPC) or to both national classification and IPC								
	THE TO GE A DOLLED							
B. FIELL	cumentation searched (classification system followed b	y classification symbols)						
		•						
	22/50, 101, 159, 186.04; 536/ 25.4, 25.41	de la comente are included i	n the fields searched					
Documentati	on searched other than minimum documentation to the ex	xtent that such documents are included	ii the noise see a see					
NONE								
n	ata base consulted during the international search (nam	e of data base and, where practicable,	search terms used)					
WPIDS on	ILL on line							
CAS on li								
C. DOC	UMENTS CONSIDERED TO BE RELEVANT							
Category*	Citation of document, with indication, where appr		Relevant to claim No.					
Y	US 4,323,439 A (O'FARRELL) 06 Apri	1 1982, see entire document.	1-102					
Y	US 5,346,999 A (CATHCART et al.) 13	3 September 1994, see entire	1-102					
	document.							
Y	US 5,605,839 A (SIMPSON et al.) 25	5 February 1997, see entire	1-102					
	document.							
,								
		· .						
1								
Fur	ther documents are listed in the continuation of Box C.	See patent family annex.						
<u> </u>	Special categories of cited documents:	"T" later document published after the in	plication but cited to understand					
-A- d	locument defining the general state of the art which is not considered	the principle or theory underlying t	he invention					
į t	o be of particular relevance parlier document published on or after the international filing date	"X" document of particular relevance; considered novel or cannot be considered	the claimed invention cannot be dered to involve an inventive step					
	throw doubts on priority claim(s) or which is	when the document is taken alone						
1 6	document which has publication date of another citation or other cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance, considered to involve an inventi-	A RIAN WHEN THE COCUMENT S					
.0.	combined with one or more other such documents, such controlled with one or more other such documents, such controlled with one or more other such documents, such controlled with one or more other such documents, such controlled with one or more other such documents, such controlled with one or more other such documents, such controlled with one or more other such documents, such controlled with one or more other such documents, such controlled with one or more other such documents, such controlled with one or more other such documents, such controlled with one or more other such documents, such controlled with one or more other such documents, such as a such document with one or more other such documents.							
•p•	document published prior to the international filing date but later than the priority date claimed	document member of the same pate						
Date of th	e actual completion of the international search	Date of mailing of the international s	еатен тероті					
27 JAN	UARY 1999	0 8FEB 1999						
Name and	1 mailing address of the ISA/US	Authorized officer JAMES O. WILSON	102 1					
Commiss Box PC	sioner of Patents and Trademarks	JAMES O. WILSON	cell					
Washing	ton, D.C. 20231	Telephone No. (703) 308-1235	_					
Facsimile	No. (703) 305-3230	* or opinion = 170.						

PATENT COOPERATION TREATY

		7(1)	41
REC'D	16 NO	IV 1399	\neg
WIP	0	PCT	\dashv

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

		····		
Applicant's or agent's file reference	FOR FURTHER ACTION	See Notif	ication of Trai	nsmittal of International ort (Form PCT/IPEA/416)
07985/012WO1	Libertinal Elica data (daula			day/month/year)
International application No.	International filing date (day/n	nonini yeur j	31 OCTOBE	
PCT/US98/23141 International Patent Classification (IPC)		DC	31 001000	
Please See Supplemental Sheet.	of flational classification and if	Č		:
Applicant				
BBI BIOSEQ, INC.				
This international preliming Examining Authority and is	ary examination report has transmitted to the applicant	been prepa according to	red by this In Article 36.	ternational Preliminary
2. This REPORT consists of a	total of sheets.			
been amended and are th	ipanied by ANNEXES, i.e., she ie basis for this report and/or sh tion 607 of the Administrative	eets containir	ng rectifications i	nd/or drawings which have made before this Authority.
These annexes consist of a to	otal of sheets.			
3. This report contains indication		lems:		***
I V Basis of the repo				
II Priority	A 50	•		
□	nt of report with regard to no	velty, inven	tive step or ind	ustrial applicability
IV Lack of unity of				
V X Reasoned statement citations and explain	nt under Article 35(2) with reg mations supporting such staten	ard to novelt ment	y, inventive step	or industrial applicability;
VI Certain documents	cited			
VII Certain defects in t	the international application			
VIII Certain observation	ns on the international applicat	ion		
				•
L				
Date of submission of the demand	Date	of completion	n of this report	
		1 OCTOBER	1000	
20 MAY 1999	"	1 OCTOBER	עעעו 1	
Name and mailing address of the IPEA		orized officer	· •	JOYCE BRIDGERS
Commissioner of Patents and Traden Box PCT		AMES O. WI	ILSON CV	PARALEGAL SPECIALIST
Washington, D.C. 20231	Teler	ohone No.	(703) 308-1235	CHEMICAL MATRIX

International application No.	
PCT/US98/23141	

I. 1	Basis f	the report				
1. Th	1. This report has been drawn on the basis of (Substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments):					
101		-	l application as original			
	[X]					
	X	the description,		_ , as originally filed.		
				_ , filed with the demand.		
				, filed with the letter of		
			pages	, filed with the letter of		
	x	the claims,	Nos. <u>1-102</u>	, as originally filed.		
			Nos. NONE	, as amended under Article 19.		
			Nos. NONE	, filed with the demand.		
				, filed with the letter of		
			Nos.	, filed with the letter of		
	x	the drawings,	sheets/fig 1-8	, as originally filed.		
	لکا		<u> </u>	, filed with the demand.		
			_	, filed with the letter of		
			sheets/ fig	, filed with the letter of		
2. T	he amend X X	the description,	pages NONE Nos. NONE sheets/Fig NONE			
3.	This to g	s report has been es to beyond the disclo	stablished as if (some of) sure as filed, as indicated	the amendments had not been made, since they have been considered in the Supplemental Box Additional observations below (Rule 70.2(c)).		
	Additiona DNE	l observations, if	necessary:			

International application No.

PCT/US98/23141

Reasoned statement under Article 35 citations and explanations supporting	such stateme	nt	
STATEMENT			
Novelty (N)	Claims	1-102	
,	Claims	NONE	N
Inventive Step (IS)	Claims	1-102	
	Claims	NONE	N
Industrial Applicability (IA)	Claims	1-102	Ү
industrial Application (1A)	Claims	NONE	N
CITATIONS AND EXPLANATION	NS		
CITATIONS AND EXPLANATION	Mo		
Claims 1-102 meet the criteria set out in PC	CT Anicle 33(2)	(4), because the prior art does not	teach or fairly suggest
Claims 1-102 meet the criteria set out in PC devices or apparatuses similar to the pressu	re modulation a	paratuses and devices instantly cla	imed, or the use of same in
devices or apparatuses similar to the pressu- methods for isolating and purifying nucleic	re modulation a acids, permeating	paratuses and devices instantly cla g cells, inactivating molecules, and	imed, or the use of same in
devices or apparatuses similar to the pressu	re modulation a acids, permeating	paratuses and devices instantly cla g cells, inactivating molecules, and	imed, or the use of same i
devices or apparatuses similar to the pressumethods for isolating and purifying nucleic tissue for the isolation of specific (macro)m	re modulation a acids, permeati olecular compo	paratuses and devices instantly cla g cells, inactivating molecules, and	imed, or the use of same i
devices or apparatuses similar to the pressumethods for isolating and purifying nucleic tissue for the isolation of specific (macro)m	re modulation a acids, permeati olecular compo	paratuses and devices instantly cla g cells, inactivating molecules, and	imed, or the use of same i
devices or apparatuses similar to the pressumethods for isolating and purifying nucleic tissue for the isolation of specific (macro)m	re modulation a acids, permeati olecular compo	paratuses and devices instantly cla g cells, inactivating molecules, and	imed, or the use of same in
devices or apparatuses similar to the pressumethods for isolating and purifying nucleic tissue for the isolation of specific (macro)m	re modulation a acids, permeati olecular compo	paratuses and devices instantly cla g cells, inactivating molecules, and	imed, or the use of same in
devices or apparatuses similar to the pressumethods for isolating and purifying nucleic tissue for the isolation of specific (macro)m	re modulation a acids, permeati olecular compo	paratuses and devices instantly cla g cells, inactivating molecules, and	imed, or the use of same i
devices or apparatuses similar to the pressumethods for isolating and purifying nucleic tissue for the isolation of specific (macro)m	re modulation a acids, permeati olecular compo	paratuses and devices instantly cla g cells, inactivating molecules, and	imed, or the use of same i
devices or apparatuses similar to the pressumethods for isolating and purifying nucleic tissue for the isolation of specific (macro)m	re modulation a acids, permeati olecular compo	paratuses and devices instantly cla g cells, inactivating molecules, and	imed, or the use of same i
devices or apparatuses similar to the pressumethods for isolating and purifying nucleic tissue for the isolation of specific (macro)m	re modulation a acids, permeati olecular compo	paratuses and devices instantly cla g cells, inactivating molecules, and	imed, or the use of same i
devices or apparatuses similar to the pressumethods for isolating and purifying nucleic tissue for the isolation of specific (macro)m	re modulation a acids, permeati olecular compo	paratuses and devices instantly cla g cells, inactivating molecules, and	imed, or the use of same i
devices or apparatuses similar to the pressumethods for isolating and purifying nucleic tissue for the isolation of specific (macro)m	re modulation a acids, permeati olecular compo	paratuses and devices instantly cla g cells, inactivating molecules, and	imed, or the use of same i
devices or apparatuses similar to the pressumethods for isolating and purifying nucleic tissue for the isolation of specific (macro)m	re modulation a acids, permeati olecular compo	paratuses and devices instantly cla g cells, inactivating molecules, and	imed, or the use of same i
devices or apparatuses similar to the pressumethods for isolating and purifying nucleic tissue for the isolation of specific (macro)m	re modulation a acids, permeati olecular compo	paratuses and devices instantly cla g cells, inactivating molecules, and	imed, or the use of same i
devices or apparatuses similar to the pressumethods for isolating and purifying nucleic tissue for the isolation of specific (macro)m	re modulation a acids, permeati olecular compo	paratuses and devices instantly cla g cells, inactivating molecules, and	imed, or the use of same i
devices or apparatuses similar to the pressumethods for isolating and purifying nucleic tissue for the isolation of specific (macro)m	re modulation a acids, permeati olecular compo	paratuses and devices instantly cla g cells, inactivating molecules, and	imed, or the use of same i
devices or apparatuses similar to the pressumethods for isolating and purifying nucleic tissue for the isolation of specific (macro)m	re modulation a acids, permeati olecular compo	paratuses and devices instantly cla g cells, inactivating molecules, and	imed, or the use of same i
devices or apparatuses similar to the pressumethods for isolating and purifying nucleic tissue for the isolation of specific (macro)m	re modulation a acids, permeati olecular compo	paratuses and devices instantly cla g cells, inactivating molecules, and	imed, or the use of same i

International application No.

PCT/US98/23141

Sup	plementa	l Box							a= · .
T.	he used v	vhen the	space in	any	of the	preceding	boxes	is not	sufficient

Continuati n of: Boxes I - VIII

Sheet 10

CLASSIFICATION:

The International Patent Classification (IPC) and/or the National classification are as listed below: IPC(6): BO1L 11/00; B32B 27/04; C07H 1/00; G01N 1/14 and US Cl.: 422/50, 101, 159, 186.04; 536/25.4, 25.46

PATENT COOPERATION TREA

From the INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: CHARLES J. BOUDREAU FISH & RICHARDSON P.C. 45 ROCKEFELLER PLAZA, SUITE 2800 NEW YORK, NY 10111

RECEIVED

NOV 1 6 1999

PCT

NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY **EXAMINATION REPORT**

(PCT Rule 71.1)

FISH & RICHARDSON, NEW YORK CITY OFFICE

Date of Mailing (day/month/year)

12 NOV 1999

Applicant's or agent's file reference IMPORTANT NOTIFICATION 07985/012WO1 Priority Date (day/month/year) International filing date (day/month/year) International application No. 31 OCTOBER 1997 **30 OCTOBER 1998** PCT/US98/23141 Applicant BBI BIOSEQ, INC.

- The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
- A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication 2. to all the elected Offices.
- Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices. 3.

REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the or later in some Offices)(Article 39(1))(see also the reminder sent by the 1

. Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

eviewed by Eilling Secretary

Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks

Washington, D.C. 20231

Telephone No. (703) 308-1235

Authorized officer JOYCE BRIDGERS JAMES O. WILSON CV PARALEGAL SPECIALIST CHEMICAL MATRIX

Facsimile No. (703) 305-3230 Form PCT/IPEA/416 (July 1992) *



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 07985/012WO1	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No.	International filing date (day/m	onth/year) Priority date (day/month/year)
PCT/US98/23141	30 OCTOBER 1998	31 OCTOBER 1997
International Patent Classification (IPC) Please See Supplemental Sheet.	or national classification and IP	С
Applicant BBI BIOSEQ, INC.		
2. This REPORT consists of a This report is also accombeen amended and are the second control of the second c	total of sheets. spanied by ANNEXES, i.e., sheet basis for this report and/or sheetion 607 of the Administrative	ets of the description, claims and/or drawings which have eets containing rectifications made before this Authority.
These annexes consist of a t 3. This report contains indication		lems'
I X Basis of the report II Priority III Non-establishme IV Lack of unity of V X Reasoned stateme citations and expl VI Certain documents VII Certain defects in	ort nt of report with regard to no invention ent under Article 35(2) with regard to no anations supporting such staten	ovelty, inventive step or industrial applicability gard to novelty, inventive step or industrial applicability; nent
Date of submission of the demand	Date	of completion of this report
20 MAY 1999		OI OCTOBER 1999
Name and mailing address of the IPEA Commissioner of Patents and Trade Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	marks	AMES O. WILSON CV phone No. (703) 308-1235



International application No.
PCT/US98/23141

I. Basis of	the report		
	No. of the second second	basis of (Substitute sheets w his report as "originally filed	shich have been furnished to the receiving Office in response to an invitation "and are not annexed to the report since they do not contain amendments):
x		application as origina	
[X]	the description,	pages 1-76	, as originally filed.
لــا			_ , filed with the demand.
		pages NONE	, filed with the letter of
		pages	, filed with the letter of
x	the claims,	Nos. <u>1-102</u>	, as originally filed.
			, as amended under Article 19.
			, filed with the demand.
			, filed with the letter of
,		Nos	, filed with the letter of
. তো	the drawings,	sheets/ fig 1-8	, as originally filed.
X	C ,		, filed with the demand.
			, filed with the letter of
		sheets/ fig	, filed with the letter of
X X X 3. Thi	the claims, the drawings,	sheets/fig NONE	the amendments had not been made, since they have been considered in the Supplemental Box Additional observations below (Rule 70.2(c)).
	al observations, if		
	•		
			·



International application No.

PCT/US98/23141

 Reasoned statement under Article 35 citations and explanations supporting 	(2) with regar	d to novelty, inventive step or industri	ial applicability;
. STATEMENT			
Novelty (N)	Claims	1-102	YES
Novemy (14)	Claims	NONE	NO
	~•• •		YES
Inventive Step (IS)	Claims	1-102 NONE	
	Claims	NONE	
	.	. 100	YE
Industrial Applicability (IA)	Claims	1-102 NONE	NO
	Claims	NONE	
	T Article 33(2) re modulation a acids, permeati	-(4), because the prior art does not teach or pparatuses and devices instantly claimed, or ng cells, inactivating molecules, and lysing o	
NONE			
·			
•			
•			
•			
·			
			•

International application No. PCT/US98/23141

Supplemental Box						- Giniant
CTo be used when the space is	any	of the	preceding	boxes is	not	sufficient

Continuation of: Boxes I - VIII

Sheet 10

CLASSIFICATION:

The International Patent Classification (IPC) and/or the National classification are as listed below: IPC(6): BO1L 11/00; B32B 27/04; C07H 1/00; G01N 1/14 and US Cl.: 422/50, 101, 159, 186.04; 536/25.4, 25.46